

Case No. 18,003. WOODWARD v. DINSMORE.
[4 Fish. Pat. Cas. 163; Merw. Pat. Inv. 430.]¹

Circuit Court, D. Maryland.

Feb., 1870.

PATENT FOR INVENTION—SOLAR CAMERA—REISSUED PATENT—NEW COMBINATION.

1. Under the doctrine of *Battin v. Taggart*, 17 How. [58 U. S.] 85, as in a cause in equity, the court passes on the facts as well as on the law, the original and reissued patents are for the court to construe and reconcile or declare to be irreconcilable.
2. It is immaterial whether or not the patentee could or did describe the rationale of his invention, if he gave the invention itself to the public.
3. Being the inventor of the device, he might subsequently, when he had it in his power to make fuller explanation of it, reissue and modify his claims.
4. An original and sole claim for the combination of a condensing lens, a photographic lens, a negative and an inclined mirror, might be amended on reissue by dropping the mirror from the combination.
5. Although the only change in an apparatus might consist in the substitution in the solar microscope of a photographic lens for a microscopic lens, yet if the latter did not produce the

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effect or perform the function of the former, it is a new and patentable combination.

[Cited in *Rodebaugh v. Jackson*, 37 Fed. 886; *Consolidated Roller-Mill Co. v. Coombs*, 39 Fed. 34.]

6. Even if the elements are unchanged, yet if with one arrangement they are incompetent to an end for which a different arrangement makes them competent, such new arrangement becomes patentable, unless it is such as would naturally suggest itself to persons skilled in the art to which the subject makes it akin.
7. The novelty of the Woodward solar camera examined and sustained.

This was a bill in equity filed to restrain the defendant [Christopher Dinsmore] from infringing letters patent [No. 16,700] for an "improvement in solar camera," granted to complainant [David A. Woodward] February 24, 1857, and reissued July 10, 1866 [No. 2,311]. The invention consisted in an apparatus for producing enlarged copies of photographic pictures, and consisted of the adaptation to the camera obscura of a lens for condensing the sun's rays, and focussing them at or near the achromatic lens.

The claim of the original patent was as follows: "Adapting to the camera obscura a lens and reflector in rear of the object glass, in such manner that it is made to answer the twofold purpose of a camera obscura and camera lucida, substantially as and for the purposes specified."

The claims of the reissued patent were: "(1) Adapting to the camera obscura a lens, or lenses, and reflector, in rear of the object glass, in such manner that it is made to answer the twofold purpose of a camera obscura and a camera lucida, substantially as and for the purposes specified. (2) The arrangement and combination of the condensing lens H, or lenses D, and H, negative slide or holder N, and achromatic lens or lenses E, made adjustable with regard to each other for condensing the sun's rays upon and through the negative, and focussing them upon prepared paper, canvas, or other suitable material for photographic purposes substantially as described."

Henry Stockbridge, H. Ii. Emmons, Jr., and J. H. B. Latrobe, for complainant.

Constant Guillon and Benjamin Price, for defendant.

GILES, District Judge. This case has been carefully and deliberately tried, after the fullest preparation, and with great ability. It involved matters altogether new to the court,—the principles of optics and the instruments and practice of photography,—and has received at the hands of the court the most attentive consideration.

The first question has been the validity of the reissued patent of 1866. Formerly, it seems to have been held, that the reissue was conclusive as to its own validity, except in cases of fraud and collusion; and it has been supposed that this was laid down in *Stimpson v. Westchester B. Co.*, 4 How. [45 U. S.] 380. Whatever may be the construction given to the opinion in that case, I do not regard such doctrine to be law at this time, as the supreme court say, in the case of *Battin v. Taggart*, 17 How. [58 U. S.] 85, "the jury are also to judge of the novelty of the invention, and whether the reissued patent is for the same invention as the original patent." And as in a cause in equity, the court passes

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on the facts as well as on the law, therefore the original and the reissued patents are for the court to construe and reconcile, or to declare to be irreconcilable: and although the decision of the patent office is entitled to great weight, yet the reissue is but prima facie evidence, and the duty devolves on the court, as it has done in this case, to determine, whether the reissue claims more than the original specification shows the patentee to have invented.

Limited to the claim made in the original patent, the complainants would not be able to recover in the present case, because the reflector is there one of the elements of the combination claimed, and the defendant's apparatus is without one. In the reissued patent, while the patentee retains the first claim, he adds a claim, omitting the reflector, and claiming "the arrangement and combination of the condensing lens, tile negative slide or holder, and achromatic lens or lenses made and adjusted, in regard to each other for condensing the sun's rays upon and through the negative, and focussing them upon prepared canvas or other suitable material for photographic purposes, substantially as described."

Now, while this is an addition to the claim of the original patent, it is fully warranted by the description contained in the specification and the drawings connected with it; and this being so, the complainant's ease is exactly that which is provided for by the thirteenth section of the patent act of July 4, 1836 [5 Stat 122].

I am, by no means, sure that the complainant was, himself, aware of the rationale of his own invention, when he took out his patent in 1857. He did what never seems to have been done before. He made a great improvement, the value of which was at once recognized by the photographic world. But whether he was able, in his original specification, to give the rationale of his invention or not, he nevertheless gave the invention itself to the public. He was the first and original inventor in the eye of the law, and was entitled to a patent; and subsequently, when he had it in his power to make a fuller explanation, and more efficiently protect himself, he had a right to a reissue, and to claim the combination which made the sun's rays effective to produce the result, whether they were brought to bear directly upon the condensing lens, or were reflected by a mirror, for convenience sake, upon it. I hold the reissue, therefore, to be valid.

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The next question was the originality of the invention; and here the opposing evidence was of two kinds: First, publications in printed works; second, oral testimony in regard to what was alleged to have been done before. Of the first kind, the publication in the *Photographic Journal* for 1856, was relied on, and, at first sight, the drawing looks very much like the patented invention. But it is only necessary to examine the same in connection with the references, to see that a most important element of the combination, a condensing lens, is altogether omitted. The French instruments were also relied on: but here, although these instruments have a condenser, the illustrative drawings show that the great principle of the Woodward camera does not exist in them. The rays from the condensing lens, instead of being focussed in the achromatic lens, including the negative within the cone of light formed by them, are focussed either before or behind the negative, and not at or near the achromatic lens, and the light in the camera being a diffused light, is wholly incompetent to produce the effect of the solar camera of the complainant. The other publications referred to by the defendants were even less like the patented invention than those just mentioned. The great principle of the solar camera is, in my opinion, altogether unaffected by the fact that the negative is moved, while the condensing and achromatic lenses are stationary. It comes to the same thing as though the negative were stationary and the two lenses were moved, provided they retained their relative positions. On referring to the testimony of the witnesses examined to prove the existence of a solar camera in Philadelphia, as far back as 1849, and in Cincinnati, at a later date, but anterior to Woodward's patent, with every possible disposition to accord to parties under oath, at all times, full credit in their sworn statements, I find it impossible to believe, that either the Philadelphia or Cincinnati instruments were solar cameras competent to do the work of the Woodward invention. To me, it seems that the Philadelphia invention was nothing more than a copying box, and the specimens of its work that have been exhibited are far from favorable. It is admitted to have been thrown aside and abandoned, and it did not make its appearance again until the success of Woodward and litigation brought it forward as a defense. I do not dwell upon the fact that there is evidence that shows, that whatever was done with it was done in private, because, as already stated, I have not been able to convince myself, that it was ever used except as a copying box. In regard to the Cincinnati invention, about whose date there is a good deal of uncertainty, the evidence shows that Hall sold the two instruments he made, one to Grob and the other to Sickendorff, and they have both been seen and described, and they never seem to have been competent to produce satisfactory results, and were considered by the purchasers worthless.

As I said before, in a case of this description, the court has, not only to pronounce the law, but to determine questions of fact in the capacity of a jury. It is thus that I am called upon to deal with the evidence before me, after its more careful elaboration by the

respective counsel, and to state the impressions it has made on me. There is a fact connected with it, however, that I can not altogether pass without remark. Both the Philadelphia and Cincinnati alleged inventors were themselves experienced opticians, and one a photographer; and it is difficult to believe, that, if they had made an invention which is admitted by all parties, both in Europe and America, to be so valuable and important, neither would have claimed it. Nor can I well understand how, if the discovery had been made seven or eight years before the date of Woodward's patent, it would not have become known among the photographers of the country,—of whom some seven or eight of the most experienced have testified in this case,—and not one of whom knew any thing of the invention until after the date of the Woodward patent. As already said, with an habitual leaning to give the fullest credit to parties under oath, I am obliged to determine the question of originality in favor of the complainant.

A prominent feature of the defense, that was ably urged, was that the solar microscope was the same, in principle and mode of operation, as the solar camera; and it was insisted, that here, as well as in the solar camera, the rays that passed through the condenser were focussed at the enlarging lens. Still, in my judgment, this does not make the solar microscope the equivalent of the solar camera. The microscope, like the magic lantern, produces enlarged images of objects; but neither are competent to print the image on the screen on which the images are thrown, without development. In the microscope, this is owing, in part, to the want of that combination of the actinic and visual rays which is due to the photographic lens employed in the solar camera; and in answer to the argument, that a person wishing to employ a solar microscope for photographic purposes, on an enlarged scale, would only have to substitute a photographic lens in place of the microscopic lens, with a suitable arrangement to accommodate it and the negative,—and the only lenses used for photographic purposes being achromatic lenses,—it is to be said, that this changing of one of the elements of a combination that will not produce a desired effect, and substituting another that makes it effective, is to produce a new and patentable combination, and even if the elements are unchanged, yet if, with one arrangement they are incompetent to an end for which a different arrangement makes them competent,

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such new arrangement becomes patentable, unless it is such as would naturally suggest itself to persons skilled in the art to which the subject makes it akin.

That the substitution and arrangement, made by the complainant, did not naturally suggest themselves to the photographers in America or Europe,—although in both countries there were attempts made in this direction, beginning with such as may have been made in Philadelphia in 1849, and by Mr. Waldack in Belgium,—may be taken as sufficient proof, that they were not so used as to deprive the complainant of a patent for making them. The solar microscope and the photographic camera doubtless gave to the patentee the materials that he subsequently contrived and arranged in the solar camera. His merit consisted in being the first to combine the elements there taken from the two.

The last question is that of infringement. About this there can be no difficulty. It is settled by my decision sustaining the reissued patent Whether the sun's rays are brought to bear directly upon the condensing lens, or through the agency of a mirror, can make no difference. The result is the same, and the mode in which the sun's rays are introduced, or made to strike upon the condenser at right angles to its plane, whether directly or by reflection, is immaterial. I sustain, therefore, the reissue, decide the question of originality in favor of the complainant, as well as the fact of infringement, and will sign a decree for a perpetual injunction.

¹ [Reported by Samuel S. Fisher, Esq., and here reprinted by permission. Merw. Pat. Inv. 430, contains only a partial report.]